REMARKS

Claims 1, 3-10, 12-15, and 17-22 are pending in the present application. In the Final Office Action mailed October 29, 2007, the Examiner rejected claims 1, 3-10, 12-15, 17-19, 21, and 22 under 35 U.S.C. §102(e) as being anticipated by Hardy et al. (USP 6,876,199).

Claim 20 was indicated as containing allowable subject matter. Such indication is appreciated.

The Examiner rejected claims 1, 9, 15, 21, and 22 under §102(e) as being anticipated by Hardy et al. Applicant respectfully requests reconsideration, because the Examiner has made a mistake with regard to the orientation of the encoding between the reference and the present claims. Hardy et al. does not teach, suggest, or disclose a frequency encoding direction that extends along an anterior/posterior axis as called for in claims 1, 9, 15, 21, and 22.

Applicant **agrees** with the Examiner's statement/admission that Hardy et al. "discloses the frequency encoding direction is [in] the superior/inferior direction." *Office Action*, 10/29/07, pg. 6; *Office Action,* 06/01/07, pg. 8. (emphasis added). This is, and has been, a primary point in Applicant's argument. *Response*, 03/13/07, pg. 7. In contrast to Hardy et al., Applicant calls for frequency encoding in the anterior/posterior axis – **not** the superior/inferior axis as disclosed in Hardy et al. *Hardy et al.,* col. 6, lns. 1-3. Hardy et al. does not teach, suggest, or disclose frequency encoding in the anterior/posterior axis.

As known by those skilled in the medical imaging arts, the anterior/posterior axis refers to the axis that is parallel to the chest to back axis. In contrast, as known by those skilled in the art, the superior to inferior direction runs parallel to the head/feet axis.

Applicant's statements have been misrepresented by the Examiner. The Examiner **inaccurately** stated that Applicant argues "Hardy fails to teach or fairly suggest the step wherein the phase encode direction extends parallel to an anterior/posterior axis..." *Office Action*, 10/29/07, pg. 6 (emphasis added); *Office Action,* 06/01/07, pg. 7. **Applicant has never made such an argument.** Applicant did state, in a response mailed on March 13, 2007, that Hardy et al. teaches that "the phase encoding direction is in the left/right direction." *Response*, 03/13/07, pg. 7. However, the anterior/posterior direction is not equivalent to the left/right direction – in fact, they are perpendicular to one another.

The Examiner has also misinterpreted the claims. In the Response to Arguments section of the present office action mailed on October 29, 2007, the Examiner made the following **inaccurate** statement: "Applicant is reminded that the claim language only requires phase encoding direction and the anterior/posterior axis to be parallel..." *Office Action*, 10/29/07, pg. 7.

This statement is simply not true. Applicant's claims do not call for the phase encode axis to run parallel to the anterior/posterior axis, but rather, call for the frequency encode axis to run along to the anterior/posterior axis. ("the frequency encode direction extends parallel to an anterior/posterior axis," claim 1; "frequency encode dimension is parallel to an anterior/posterior axis," claim 9; "frequency encode the FOV in a third direction ...[,] the third direction which is parallel to an anterior/posterior axis," claim 15; "a frequency encoding direction along an anterior/posterior axis," claim 21; "in a frequency encoding direction along an anterior/posterior axis," claim 22.).

The Examiner cites to portions of Hardy et al. that do not support the Examiner's interpretation. *Office Action*, 10/29/07, pg. 2 (For support, the Examiner cites *Hardy et al.*, col. 4, lns. 46-66.). The citation, however, does not support the Examiner's statement that Hardy et al. discloses that "the frequency encode direction extends parallel to an anterior/posterior axis" *Id.* The citation makes no reference to the direction of phase or frequency encoding. *Hardy et al.*, col. 4, lns. 46-66. The citation merely makes reference to the orientation of the RF receiver array – not the directions of frequency and phase encoding. *Id.* Next, and as noted above, the Examiner cites to *Hardy et al.*, col. 6, lns. 1-3, stating that such citation does not support Applicant's previously made arguments. *Office Action*, 10/29/07, pg. 6. The Examiner asserts that such citation shows that "Hardy discloses the frequency encoding direction is [in] the superior/inferior direction." *Id.* Again, the Examiner is correct in that "Hardy discloses the frequency encoding direction is [in] the superior/inferior direction." *Id.* However, that is, and has been, Applicant's point.

To repeat, Hardy et al. does not teach or suggest a frequency encoding direction parallel to the anterior/posterior axis. In contrast, Hardy et al. discloses that the "frequency-encoding direction is superior/inferior." *Hardy et al.*, col. 6, lns. 1-2 (emphasis added). That is, Hardy et al. "discloses the frequency encoding direction is [in] the superior/inferior direction." *Office Action*, 10/29/07, pg. 6; *Office Action*, 06/01/07, pg. 8.

Further, Applicant would like to address the Examiner's statement that "features upon which applicant relied [on in the prior response] (i.e., no (sic) parallel to Z direction or perpendicular to the Z direction) are not recited in the claim(s)." *Id* at pg. 7. Applicant is aware that such features are not recited in the claims. However, Applicant was not asserting that such features were explicitly recited in the claims, but was attempting to assist the Examiner in properly understanding the claimed invention. In the August 1, 2007, Response, Applicant referred to "the Z direction" to illustrate to the Examiner that the frequency encoding axis

referred to in Hardy et al. is perpendicular to Applicant's claimed frequency encoding anterior/posterior axis.

Accordingly, Hardy et al. does not teach, suggest, or disclose, each and every limitation of claims 1, 9, 15, 21, and 22. Therefore, Applicant respectfully requests withdrawal of the §102(e) rejections of claims 1, 9, 15, 21, and 22, and all claims depending therefrom.

Therefore, in light of at least the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1, 3-10, 12-15, and 17-22.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,

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General Authorization and Extension of Time

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 07-0845. Should no proper payment be enclosed herewith, as by credit card authorization being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 07-0845. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extensions under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 07-0845. Please consider this a general authorization to charge any fee that is due in this case, if not otherwise timely paid, to Deposit Account No. 07-0845.

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